

**REMARKS**

Claims 1-14 are pending in this application. Claims 2, 4-6, 9-10, and 12 were previously canceled, leaving claims 1, 3, 7-8, 11, and 13-14 remaining. Claim 1 has been amended in the expectation that the amendments will place this application in condition for allowance.

The amendments do not introduce new matter within the meaning of 35 U.S.C. §132. Basis for the claim amendments is found on page 3, line 18 to page 5, line 23; in claims 1-14 as originally filed; and elsewhere throughout the specification and claims. Accordingly, entry of the amendments is respectfully requested.

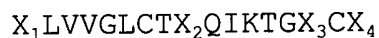
Applicants take this opportunity to thank the Examiner for the previous reconsideration and withdrawal of the rejections under 35 U.S.C. §§101, 102, and 112, recognizing the novelty of the inventive subject matter; the indication of allowable subject matter in claims 3, 7-8, 11, and 13-14; and the indication of allowable subject matter in claim 1 upon removal of the new matter which triggered the rejections herein.

**1. Election/Restriction and Improper Markush Group**

The Office Action makes final a Restriction Requirement initially imposed in an Office Action dated March 27, 2002, because "...the technical features differ in sequence structure, function,

effects and are capable of distinct utilities", and the claimed species constitute an improper Markush Group because they "lack a common core structure".

Applicants previously traversed the stated ground for restriction, and have several times amended claim 1, the sequence listing, or both, in order to present a generic sequence which can be described in compliance with 37 C.F.R. §§1.821-1.825. Applicants respectfully submit that claim 1 as amended in the Response dated October 15, 2002 was properly generic. Only because of limitations in the Patent-In software, this **properly claimed** generic sequence could not be presented in an acceptable Computer Readable Form. Further, from several telephone conferences with the Examiner, Applicants have previously understood that the following sequence, as claimed on October 15, 2002, was acknowledged to be generic to SEQ ID NO: 2-9:



wherein  $X_1$  is selected from the group consisting of SGETEDTFIAD, IAD, AD, D, and a bond/hydrogen;

$X_2$  is selected from the group consisting of C, G, and P;

$X_3$  is selected from the group consisting of AP, and PA; and

$X_4$  is selected from the group consisting of R, and a bond/hydrogen.

In light of the proper generic **claim**, and regardless of continuing CRF issues, Applicants have understood the Restriction Requirement to have been withdrawn.

SEQ ID NO: 1, as presently amended and presented in claim 1, is generic, and amended claim 1 must be examined in full and allowed, for the following reasons:

SEQ ID NO: 1 comprises a polypeptide of between 17 and 28 amino acids. The following common features and permitted variations in the generic sequence are readily apparent to one of ordinary skill in the art:

1. Amino acids 1-11 comprise a variable -terminus sequence which, optionally, (a) is absent or (b) when present, comprises a nested set of variable length sequences, *which are notably otherwise invariable*, selected from four possible variants: D, AD, IAD, and SGETEDTFIAD. As presently amended, SEQ ID NO: 1 is generic to these four listed variants.

2. Core amino acids 12-27 are highly conserved, and indeed essentially identical, with the only sequence variations permitted being:

- (a) conservative substitutions permitted among three non-polar amino acids at position 19,
- (b) sequence reversal (but no sequence substitutions) permitted at positions 25 and 26, and

(c) Arginine at position 28 may be absent.

Accordingly, the amino acid sequence claimed in claim 1, as presently amended, is generic to the species of SEQ ID NO: 2-9 which comprise a fully proper Markush group, which share a common utility (binding to antibodies isolated from schizophrenics), and which share a substantial structural feature (core amino acids 12-28). Claim 1 is clearly generic within the meaning of 37 CFR §1.141 and MPEP §§806.04(a), et seq.

Accordingly, Applicants respectfully request the Examiner to reconsider and withdraw the Restriction Requirement.

**2. Objection to SEQ ID NO: 1, under 35 U.S.C. §132--New Matter**

The Office Action objects to SEQ ID NO: 1 within the sequence listing under 35 U.S.C. §132 because it introduces new matter into the disclosure. Specifically, the Office Action objects because "the generic sequence represented as new SEQ ID NO: 1 within the sequence listing is not supported by the specification as originally filed." Applicant is directed to cancel the new matter in the reply to this Office Action.

Applicants thank the Examiner for her courtesy in discussing Applicants efforts at overcoming the limitations in the Patent-In software, in order to both claim and provide an acceptable sequence listing for the generic sequence now represented by amended SEQ ID

NO: 1. Applicants have amended claim 1 and the sequence listing in the expectation that the amendments will place this application in condition for allowance. In particular, Applicants believe that they have removed all instances of new matter in the claims and sequence listing, have successfully amended the sequence listing and CRF to define the generic SEQ ID NO: 1 in compliance with 37 C.F.R. §§1.821-1.825, and respectfully submit that the claims as so amended are also novel over the prior art of record.

In compliance with the requirements of 37 C.F.R. §1.821(f) and (g), Applicants, through the undersigned attorney, hereby state that:

- 1) The submission does not include new matter; and
- 2) The content of the attached paper copy and the attached computer readable copy of the Sequence Listing are identical.

Accordingly, Applicants respectfully request the Examiner to reconsider and withdraw this objection.

**CONCLUSION**

Based upon the above remarks, the presently claimed subject matter is believed to be novel and patentably distinguishable over the prior art of record. The Examiner is therefore respectfully requested to reconsider and withdraw the rejections of remaining claims 1, 3, 7-8, 11, and 13-14, and allow all pending claims presented herein for reconsideration. Favorable action with an early allowance of the claims pending in this application is earnestly solicited.

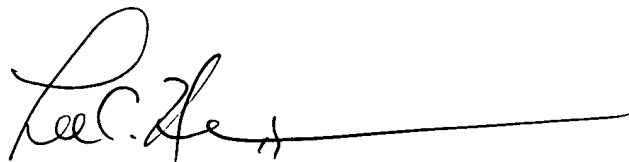
The Examiner is welcomed to telephone the undersigned attorney if she has any questions or comments.

Respectfully submitted,

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